

### Remarks

Claims 1, 4-6, 10, 12, 14, 16, and 18 were previously amended. Claims 3, 7, 8, 13, and 15 were previously cancelled. Claims 1, 2, 4-6, 9-12, 14, and 16-20 are pending in this application. The Examiner has rejected claims 1, 2, 4, 10-12, 14, and 16-20 under 35 U.S.C. § 102(e) as being unpatentable over U.S. Patent No. 6,567,892 to Horst, et al. (hereinafter "Horst"). The Examiner has rejected claims 5, 6, and 9 under 35 U.S.C. § 103(a) as being obvious over Horst in view of U. S. Patent Application Publication No. 2004/0117579 to Wu, et al. (hereinafter "Wu"). Applicants respectfully traverse the Examiner's rejections. Applicants thank the Examiner for his careful consideration of this application and the references that Applicants have submitted.

**A. Remarks Regarding Rejection of Claims 1, 10, and 18 under 35 U.S.C. § 102(e)**

A prior art patent, publication, or event is for the same "invention," as that word is used in §102, and therefore anticipating, if the prior art patent, publication or event discloses each and every limitation found in the claims, either expressly or inherently. *Rockwell Intern. Corp. v. Us.*, 147 F.3d 1358, 1363 (Fed. Cir. 1998); *Electro Med. Sys. S.A. v. Cooper Life Sciences*, 34 F.3d 1048, 1052 (Fed. Cir. 1994). Each claim limitation must be found in a single prior art reference; references cannot be combined under §102. *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 20 (Fed. Cir. 2000). Omission of any claimed element, no matter how insubstantial, is grounds for traversing a rejection based on §102. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542 (Fed. Cir. 1983).

Horst does not disclose all of the limitations of independent claims 1, 10, and 18. In particular, Horst does not disclose the limitations of (1) a non-volatile memory/journal in **each**

drive controller for storing commands, (2) a count of commands in **each** drive controller, or (3) a **predetermined threshold value** for the count of commands, as required in claims 1, 10, and 18. As to limitation (1), the Office Action contends that Horst teaches the limitation in element 170 of figure 1, the Pending Completion Write Queue. Office Action at page 3. However, Horst's Figure 1 clearly illustrates a single Pending Completion Write Queue 170 servicing multiple Drive Controllers 122. Horst simply does not teach a memory/journal for storing commands in **each** drive controller. Moreover, the Office Action concedes that Horst fails to teach "each drive controller as comprising a first memory" operable to store a history of write commands. Office Action at page 9.

As to limitation (2), the Office Action contends that Horst teaches this limitation at column 7, lines 35-67, stating specifically, "the device driver queue tracks the number of commands queued in the pending completion write queue". Office Action at page 4. However, as illustrated in Horst's Figure 1, the device driver 104 is not a component of the drive controller 122. Instead, the device driver 104 is located in the host system 102, separate and apart from the array controller 120, of which the device controller 122 is a component. Moreover, the Office Action concedes that "Horst further fails to teach each drive controller as comprising a second memory" for recording the number of commands stored in the first memory. Office action at page 10.

As to limitation (3), the Office Action contends that Horst teaches the limitation at column 7, lines 35-67, equating the predetermined threshold with the maximum device driver queue depth. Office Action at page 4. Horst discloses that reaching the maximum device driver queue depth would indicate that the host system has run out of commands. Horst col. 7, lines 60-62. Whether the host system has run out of commands would be independent of any sort of

predetermined threshold value of the count of commands which is maintained in each drive controller. In fact, Applicants have thoroughly reviewed the entirety of Horst and can find no disclosure of a predetermined threshold value of the count of commands which is maintained in each drive controller. Therefore, Horst does not teach the limitations of (1) a non-volatile memory/journal in each drive controller for storing commands, (2) a count of commands in each drive controller, or (3) a predetermined threshold value for the count of commands, as required by independent claims 1, 10, and 18.

For at least these reasons, Horst does not anticipate independent claims 1, 10, and 18, and Applicants respectfully request that the rejection of these claims be withdrawn.

**B. Remarks Regarding Rejection of Claim 5 under 35 U.S.C. § 103 (a)**

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The combination of Horst and Wu fails to teach or suggest all the claim limitations of independent claim 5. Specifically, the combination fails to teach or suggest (1) drive controller comprising a first memory operable to store a history of write commands, (2) drive controller comprising a second memory for recording the number of write commands stored in the first memory, or (3) a predetermined threshold for the number of commands. As previously discussed, Horst fails to teach these three limitations (*see supra* Section A). Wu also

fails to teach or suggest any of these three limitations. Wu simply teaches “systems and methods for implementing shared memory regions in a distributed shared memory system”. In fact, the Office Action looks to Wu only for the teaching of “each drive controller... is associated with a single drive....” Office Action at page 10. Wu Abstract. At best, Wu teaches data word counts, which are not the same as the command counts recited in independent claim 5. Wu utterly fails to teach storing **a history of write commands or a predetermined threshold number of commands**. Therefore, the combination of Horst and Wu fails to teach (1) drive controller comprising a first memory operable to store a history of write commands, (2) drive controller comprising a second memory for recording the number of write commands stored in the first memory, or (3) a predetermined threshold for the number of commands.

**C. Remarks Regarding Rejections of Dependent Claims 2, 4, 6, 9, 11-12, 14, 16-17, and 19-20**

The rejections of dependent claims 2, 4, 6, 9, 11-12, 14, 16-17, and 19-20 will not be discussed individually herein, as each of these claims depends, either directly or indirectly, from an otherwise allowable base claim.

**D. No Waiver**

All of Applicants’ arguments are without prejudice or disclaimer. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner’s additional statements, such as, for example, any statements relating to what would be obvious to a person of ordinary skill in the art.

**Conclusion**

Applicants respectfully submit that the pending claims 1, 2, 4-6, 9-12, 14, and 16-20 of the present invention, as amended, are allowable. Applicants respectfully request that the rejection of the pending claims be withdrawn and that these claims be passed to issuance.

Respectfully submitted,



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